

In the Claims:

Claim 1 (original): A method for forming a field effect transistor over a substrate, said method comprising steps of:

forming an interfacial oxide layer over a channel region of said substrate, said interfacial oxide layer having a first thickness;

forming an oxygen-attracting layer over said interfacial oxide layer;

forming a high-k dielectric layer over said oxygen-attracting layer;

forming a gate electrode layer over said high-k dielectric layer;

wherein said oxygen-attracting layer prevents said first thickness of said interfacial oxide layer from increasing.

Claim 2 (original): The method of claim 1 wherein said interfacial oxide layer prevents a high-k element from diffusing into said channel region.

Claim 3 (original): The method of claim 1 wherein said step of forming said oxygen-attracting layer comprises forming a metal layer over said interfacial oxide layer, said metal layer combining with oxygen to form a silicate.

Claim 4 (original): The method of claim 1 wherein said oxygen-attracting layer is selected from the group consisting of zirconium silicate and hafnium silicate.

Claim 5 (original): The method of claim 1 wherein said high-k dielectric layer is selected from the group consisting of hafnium oxide, hafnium silicate, zirconium silicate, and zirconium oxide.

Claim 6 (original): The method of claim 1 wherein said first thickness of said interfacial oxide layer is between approximately 4.0 Angstroms and approximately 5.0 Angstroms.

Claim 7 (original): The method of claim 1 wherein a second thickness of said oxygen-attracting layer is approximately 5.0 Angstroms.

Claims 8-13 (canceled).

Claim 14 (original): A method for forming a field effect transistor over a substrate, said method comprising steps of:

forming a high-k dielectric layer over a channel region of said substrate;

forming an oxygen-attracting layer over said high-k dielectric layer;

forming a gate electrode layer over said oxygen-attracting layer;

wherein said oxygen-attracting layer prevents an interfacial oxide layer from forming between said high-k dielectric layer and said substrate.

Claim 15 (original): The method of claim 14 wherein said step of forming said oxygen-attracting layer comprises forming a metal layer over said high-k dielectric layer, said metal layer combining with oxygen from said high-k dielectric layer to form a high-k dielectric.

Claim 16 (original): The method of claim 14 wherein said oxygen-attracting layer and said high-k dielectric layer form a high-k gate dielectric stack.

Claim 17 (original): The method of claim 14 wherein said oxygen-attracting layer is selected from the group consisting of zirconium oxide and hafnium oxide.

Claim 18 (original): The method of claim 14 wherein said high-k dielectric layer is selected from the group consisting of zirconium oxide and hafnium oxide.

Claim 19 (original): The method of claim 14 wherein said oxygen-attracting layer has a thickness of approximately 5.0 Angstroms.

Claim 20 (original): The method of claim 14 wherein said high-k dielectric layer has a thickness of between approximately 20.0 Angstroms and approximately 30.0 Angstroms.